UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,839	05/13/2005	Kyoung-Il Seo	038779/291940	8968

826   7590   01/23/2009
ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER
NILANONT, YOUPAPORN

ART UNIT	PAPER NUMBER
2446	

MAIL DATE	DELIVERY MODE
01/23/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/534,839	SEO ET AL.
		Examiner	Art Unit
		YOUPAPORN NILANONT	2446

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 November 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-43</u> is/are pending in the application.

     4a) Of the above claim(s) <u>22-43</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☒ Claim(s) <u>3,6,10,14 and 20</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>13 May 2005</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some *   c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☒ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/13/2005</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Claims 22-43 are withdrawn from further consideration pursuant to 37 CFR

1.142(b), as being drawn to a nonelected invention, there being no allowable generic or

linking claim. Applicant timely traversed the restriction (election) requirement in the reply

filed on November 7, 2008.

Drawings

2.   Figures 1 and 2 should be designated by a legend such as --Prior Art-- because

only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description:

        a.   Figure 9, step "S11" is described as "S10" in the specification;

        b.   Figure 17, "PDSN 11400" is described as "PDSN 1400" in the

        specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to

the specification to add the reference character(s) in the description in compliance with

37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being

amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37

CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Claim Construction

4.   The term "Packet data separator" in claims 1-3, 7, 12-14, and 17 has been

construed as "Ethernet separator 510" as shown in figures 4 and 5.

5.   The portion of claim 6 following "statistics data include" recites nonfunctional

descriptive material and do not impose any particular functional requirement for the

claimed analyzer, and therefore do not limit the claim. (see MPEP § 2106(II) and §

2111.04). In the discussion of the claims below, this material has been placed in double

square brackets indicating that, even though it has not been given any patentable

weight, it has been fully considered.

Specification

6.   The disclosure is objected to because of the following informalities:

        a.   "FIG. 3" on page 21, line 21 should be --FIG. 10--;

b.   "Tx and Tx" on page 27, line 23 and page 28, line 2 should be --Tx and

Rx--.

Appropriate correction is required.

7.   The lengthy specification has not been checked to the extent necessary to

determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the

specification.

Claim Objections

8.   Claim 6 is objected to because of the following informalities: "receive + transmit"

should be written in clear language to prevent any ambiguity that may arise.

Appropriate correction is required.

9.   Claims 3, 10, 14, and 20 are objected to under 37 CFR 1.75(c), as being of

improper dependent form for failing to further limit the subject matter of a previous

claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the

claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 3 and 14 recite "the traffic analyzer separates the user packet data

received through the packet data separator into transmit data and receive data, and

analyzes them" which essentially recite the same traffic analyzer as cited in claims 1

and 12, respectively. The "transmission directions" cited in claims 1 and 12 can be

interpreted with the same meaning as "transmit" and "receive" mentioned in claims 3

and 14.

Claims 10 and 20 recite "separating the receive user packet data into transmit data and receive data" which is the same as "transmission directions" cited in claims 8 and 18.

Claim Rejections - 35 USC § 112

10.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11.   Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12.   Claim 17 recites the limitation "The method of claim 12" in the first line. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, "The method" has been construed as the device.

Claim Rejections - 35 USC § 103

13.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14.   Claims 1, 3-4, 7-8, 10-12, 14-15, 17-18, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mimura et al. (US 2001/0021176) in view of common knowledge in the art.

15.   **Regarding claim 1**, Mimura teaches an analyzer for packet data traffic transmitted between a subscriber and a service server (Mimura, figure 1, [0035] "a

packet switch that implements monitoring communication flows and collecting statistics data") when the subscriber uses a wireless data service of a specific service server through a mobile communication network, comprising:

a packet data separator for separating user packet data transmitted and receiving the user packet data (Mimura, figure 1 "input interface 2" and "flow identifying unit 3", [0036] "IP packets...are input to the input IF 2" and [0037] "unit 3 receives...and identifies...by using information contained in the head of the packets");

a traffic analyzer for separating the user packet data received through the packet data separator according to transmission directions, and analyzing the user packet data (Mimura, figure 1 "flow identifying unit 3" and "flow table 4", [0037] "The flow identifying unit 3...such as Source IP Address (SIP), Destination IP Address (DIP)" and "a search key comprising any information items can be applied if available for communication flow identification" it is understood that the directions can be identified by using the information about source and destination of the packet);

a statistics storage unit for storing and managing result data analyzed by the traffic analyzer (Mimura, figure 1 "meter 5", [0038] "meter 5 measures predetermined items…and retains these measurements as statistics data");

and a statistics reference unit for retrieving various data stored in the statistics storage unit, and providing statistical information desired by the user (Mimura, figure 1 "management IF 13", figure 3 "meter reader 39", [0042]

"delivers the statistics data…sends this data to the network management system").

Mimura does not explicitly disclose that its switch, which analyzes data packets in an IP network, is used to analyze packet data traffic provided between one of a mobile communication exchange and a packet controller that provide a wireless data service to the subscriber, and the service server. However, Mimura's switch specifically analyzes data packets identified by their transmission flows which also reads on the claimed analyzer since the data traffic passing between mobile communication exchange or a packet controller and a server is the same IP packet traffic that Mimura's analyzing switch and be used in.

Therefore, it would have been obvious to the person having ordinary skill in the art, at the time the invention was made to have used Mimura's switch which is capable of analyzing data packet traffic in any kind of IP network, in order to gather information useful for network, financial, or billing management (Mimura, [0005] "quality of communication" and [0009] "charging and other administrative tasks").

16.   **Regarding claim 3**, modified Mimura teaches the analyzer of claim 1, wherein the traffic analyzer separates the user packet data received through the packet data separator into transmit data and receive data, and analyzes them (Mimura, figure 1 "flow identifying unit 3" and "flow table 4", [0037] "The flow identifying unit 3...such as Source IP Address (SIP), Destination IP Address (DIP)" and "a search key comprising any information items can be applied if available for communication flow identification" it

is understood that the directions can be identified by using the information about source
and destination of the packet).

17.   **Regarding claim 4**, modified Mimura teaches the analyzer of claim 3, wherein
Mimura further teaches the traffic analyzer analyzes a TCP (transmission control
protocol) transmission flow between one of the mobile communication exchange and
the packet controller and the service server through the user packet data (Mimura,
[0037] "...TCP layers which are upper than the IP layer maybe used" and rejection on
claim 1 cited above).

18.   **Regarding claim 7**, modified Mimura teaches the analyzer of claim 1, wherein
Mimura further teaches a switching hub for transmitting packets to an appropriate port
based in a packet address, and a router for connecting separated networks that use the
same transmission protocol, are connected between the packet data separator and the
service server (Mimura, figure 3 "34"-"36").

19.   **Regarding claim 8**, Mimura teaches a method for analyzing packet data traffic
transmitted between a subscriber and a service server (Mimura, [0035] "monitoring
communication flows and collecting statistics data") when the subscriber uses a
wireless data service of a specific service server through a mobile communication
network, comprising :

            (a) separating user packet data transmitted (Mimura, [0037] "using the
        information contained in the header") and receiving the user packet data
        (Mimura, [0037] "receives the IP packets delivered");

(b) separating the user packet data received in (a) according to

transmission directions, and analyzing the user packet data (Mimura, [0037] "flow

identifying...identifies a flow...conditions for communication flow identification

stored in the flow table 4 are set by using...Source IP Address (SIP), Destination

IP Address (DIP)", it is understood that the directions can be identified by using

the information about source and destination of the packet);

and (c) providing statistical information desired by the user by using result

data analyzed in (b) (Mimura, [0037] "...collecting statistics data obtained by

monitoring the communication flow").

Mimura does not explicitly disclose that its switch, which performs data packets

analysis in an IP network, is used to analyze packet data traffic transmitting between

one of the mobile communication exchange and the packet controller that provide a

wireless data service to the subscriber, and the service server. However, Mimura's

switch specifically analyzes data packets identified by their transmission flows which

also reads on the claimed analyzer since the data traffic passing between mobile

communication exchange or a packet controller and a server is the same IP packet

traffic that Mimura's analyzing switch and be used in.

Therefore, it would have been obvious to the person having ordinary skill in the

art, at the time the invention was made to have used Mimura's switch which is capable

of analyzing data packet traffic in any kind of IP network, in order to gather information

useful for network, financial, or billing management (Mimura, [0005] "quality of

communication" and [0009] "charging and other administrative tasks").

20.   **Regarding claim 10**, modified Mimura teaches the method of claim 8, wherein

(b) comprises: separating the received user packet data into transmit data and receive

data, and analyzing them (Mimura, [0037] "flow identifying…identifies a flow…conditions

for communication flow identification stored in the flow table 4 are set by using…Source

IP Address (SIP), Destination IP Address (DIP)", it is understood that the directions can

be identified by using the information about source and destination of the packet).

21.   **Regarding claim 11**, modified Mimura teaches the method of claim 10, wherein

Mimura further teaches a TCP transmission flow between one of the mobile

communication exchange and the packet controller and the service server is analyzed

through the user packet data (Mimura, [0037] "…TCP layers which are upper than the

IP layer maybe used" and see rejection on claim 8 cited above).

22.   **Regarding claim 12**, Mimura teaches a device for monitoring a service for a

subscriber through an analysis of packet data traffic transmitted between the subscriber

and a service server (Mimura, figure 1) when the subscriber uses a wireless data

service of a specific service server through a mobile communication network,

comprising:

>   a packet data separator for separating user packet data transmitted and
>
>   receiving the user packet data (Mimura, figure 1 "input interface 2" and "flow
>
>   identifying unit 3", [0036] "IP packets...are input to the input IF 2" and [0037] "unit
>
>   3 receives...and identifies...by using information contained in the head of the
>
>   packets");

a traffic analyzer for separating the user packet data received through the

packet data separator according to transmission directions, and analyzing the

user packet data (Mimura, figure 1 "flow identifying unit 3" and "flow table 4",

[0037] "The flow identifying unit 3...such as Source IP Address (SIP), Destination

IP Address (DIP)" and "a search key comprising any information items can be

applied if available for communication flow identification" it is understood that the

directions can be identified by using the information about source and destination

of the packet);

a statistics storage unit for storing and managing result data analyzed by

the traffic analyzer (Mimura, figure 1 "meter 5", [0038] "meter 5 measures

predetermined items...and retains these measurements as statistics data");

and a service monitoring unit for generating information including

normality states on the subscriber for each service through various data stored in

the statistics storage unit, and providing the information to a manager (Mimura,

figure 3 "meter reader 39" and "manager 38", [0005] "quality of communication"

and [0009] "charging and other administrative tasks").

Mimura does not explicitly disclose that its switch, which analyzes data packets

in an IP network, is used to analyze packet data traffic provided between one of a

mobile communication exchange and a packet controller that provide a wireless data

service to the subscriber, and the service server. However, Mimura's switch specifically

analyzes data packets identified by their transmission flows which also reads on the

claimed analyzer since the data traffic passing between mobile communication

exchange or a packet controller and a server is the same IP packet traffic that Mimura's
analyzing switch and be used in.

Therefore, it would have been obvious to the person having ordinary skill in the
art, at the time the invention was made to have used Mimura's switch which is capable
of analyzing data packet traffic in any kind of IP network, in order to gather information
useful for network, financial, or billing management (Mimura, [0005] "quality of
communication" and [0009] "charging and other administrative tasks").

23.   **Regarding claim 14**, modified Mimura teaches the device of claim 12, wherein
the traffic analyzer separates the user packet data received through the packet data
separator into transmit data and receive data, and analyzes them (Mimura, figure 1
"flow identifying unit 3" and "flow table 4", [0037] "The flow identifying unit 3...such as
Source IP Address (SIP), Destination IP Address (DIP)" and "a search key comprising
any information items can be applied if available for communication flow identification" it
is understood that the directions can be identified by using the information about source
and destination of the packet).

24.   **Regarding claim 15**, modified Mimura teaches the device of claim 12, wherein
Mimura further teaches the traffic analyzer analyzes a TCP (transmission control
protocol) transmission flow between one of the mobile communication exchange and
the packet controller and the service server through the user packet data (Mimura,
[0037] "...TCP layers which are upper than the IP layer maybe used" and rejection
regarding claim 12 above).

25.   **Regarding claim 17**, modified Mimura teaches the method of claim 12, wherein

a switching hub for transmitting packets to an appropriate port based in a packet

address, and a router for connecting separated networks that use the same

transmission protocol are connected between the packet data separator and the service

server (Mimura, figure 3 "34"-"36").

26.   **Regarding claim 18**, Mimura teaches a method for monitoring a service for a

subscriber through an analysis of packet data traffic transmitted between the subscriber

and a service server (Mimura, [0035] "monitoring communication flows and collecting

statistics data") when the subscriber uses a wireless data service of a specific service

server through a mobile communication network, comprising:

        (a) separating user packet data (Mimura, [0037] "using the information

        contained in the header") and receiving the user packet data (Mimura, [0037]

        "receives the IP packets delivered");

        (b) separating the user packet data received in (a) according to

        transmission directions, and analyzing the user packet data (Mimura, [0037] "flow

        identifying...identifies a flow...conditions for communication flow identification

        stored in the flow table 4 are set by using...Source IP Address (SIP), Destination

        IP Address (DIP)", it is understood that the directions can be identified by using

        the information about source and destination of the packet);

        and (c) generating information including normality states on the subscriber

        for each service through result data analyzed in (b), and providing the information

to a manager (Mimura, figure 3 "meter reader 39" and "manager 38", [0040] and

[0044]).

Mimura does not explicitly disclose that its switch, which performs data packets

analysis in an IP network, is used to analyze packet data traffic transmitting between

one of a mobile communication exchange and a packet controller that provide a

wireless data service to the subscriber, and the service server. However, Mimura's

switch specifically analyzes data packets identified by their transmission flows which

also reads on the claimed analyzer since the data traffic passing between mobile

communication exchange or a packet controller and a server is the same IP packet

traffic that Mimura's analyzing switch and be used in.

Therefore, it would have been obvious to the person having ordinary skill in the

art, at the time the invention was made to have used Mimura's switch which is capable

of analyzing data packet traffic in any kind of IP network, in order to gather information

useful for network, financial, or billing management (Mimura, [0005] "quality of

communication" and [0009] "charging and other administrative tasks").

27.   **Regarding claim 20**, modified Mimura teaches the method of claim 18, wherein

(b) comprises: separating the received user packet data into transmit data and receive

data, and analyzing them (Mimura, [0037] "flow identifying…identifies a flow…conditions

for communication flow identification stored in the flow table 4 are set by using…Source

IP Address (SIP), Destination IP Address (DIP)", it is understood that the directions can

be identified by using the information about source and destination of the packet).

28.   **Regarding claim 21**, modified Mimura teaches the method of claim 20, wherein

Mimura further teaches a TCP transmission flow between one of the mobile

communication exchange and the packet controller and the service server is analyzed

through the user packet data (Mimura, [0037] "...TCP layers which are upper than the

IP layer maybe used" and rejection regarding claim 18 above).

29.   Claims 2, 5-6, 9, 13, 16, and 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Mimura et al. (US 2001/0021176) in view of common knowledge in

the art as applied to claims 1 and 8 above, and further in view of Pruthi et al. (US

2002/0105911).

30.   **Regarding claim 2**, modified Mimura teaches the analyzer of claim 1, wherein

the packet data separator is accessed between one of the mobile communication

exchange and the packet controller and the service server, and separates the user

packet data into transmit data and receive data, and receives them (Mimura, figure 1

"input interface 2" and "flow identifying unit 3", [0036] "IP packets...are input to the input

IF 2" and [0037] "The flow identifying unit 3...such as Source IP Address (SIP),

Destination IP Address (DIP)" and "a search key comprising any information items can

be applied if available for communication flow identification" it is understood that the

directions can be identified by using the information about source and destination of the

packet and rejection regarding claim 1 above).

       The modified Mimura fails to explicitly disclose that the analyzer is accessed to

an Ethernet access. However, Pruthi discloses such limitation (Pruthi, figure 1 "104",

[0032] "communication line 104...Ethernet"). It would have been obvious to the person
of ordinary skill in the art, at the time the invention was made, to have used Ethernet as
specified in Pruthi in order to allow Mimura's analyzer to work with widely used, least
cost, Ethernet network.

31.   **Regarding claim 5**, modified Mimura teaches the analyzer of claim 1, wherein
the statistics reference unit provides various real- time statistics data analyzed by the
traffic analyzer to the user (Mimura, [0040] "meter 5 provides the function of observing
incoming IP packets and acquiring statistics data"). The modified Mimura fails to
explicitly show that the statistics are shown through a GUI (graphical user interface).

However, Pruthi discloses a GUI used to display statistics to users of its Network
Monitor (Pruthi, figures 10-28). It would have been obvious to the person of ordinary
skill in the art, at the time the invention was made, to have used GUI as taught by Pruthi
in Mimura's management system in order to inform the users who monitor the network
of information useful to them.

32.   **Regarding claim 6**, modified Mimura teaches the analyzer of claim 5, wherein
the various real-time statistics data (**Mimura, [0040]**) [Pruthi also teaches statistics day
include statistics on communication amounts of receive data, transmit data, and receive
+ transmit data, access trials for each layer, a number of success times, a number of
failure times, and current states, and further include usage statistics for each IP on each
application, successful access rate statistics for each service, statistics on response
times, and successful rate statistics on a PPP session for each base station] (Pruthi,
[0033]).

33.　　**Regarding claim 9**, modified Mimura teaches the method of claim 8, wherein (a)

comprises: separating the user packet data into transmit data and receive data, and

receiving them (Mimura, [0037] "flow identifying…identifies a flow…conditions for

communication flow identification stored in the flow table 4 are set by using…Source IP

Address (SIP), Destination IP Address (DIP)", it is understood that the directions can be

identified by using the information about source and destination of the packet and

rejection regarding claim 8 above).

　　　　　The modified Mimura fails to explicitly disclose that the analyzer is accessed to

an Ethernet access. However, Pruthi discloses such limitation (Pruthi, figure 1 "104",

[0032] "communication line 104…Ethernet"). It would have been obvious to the person

of ordinary skill in the art, at the time the invention was made, to have used Ethernet as

specified in Pruthi in order to allow Mimura's analyzer to work with widely used, least

cost, Ethernet network.

34.　　**Regarding claim 13**, modified Mimura teaches the device of claim 12, wherein

the packet data separator is accessed between one of the mobile communication

exchange and the packet controller and the service server, and separates the user

packet data into transmit data and receive data, and receives them (Mimura, figure 1

"input interface 2" and "flow identifying unit 3", [0036] "IP packets…are input to the input

IF 2" and [0037] "The flow identifying unit 3…such as Source IP Address (SIP),

Destination IP Address (DIP)" and "a search key comprising any information items can

be applied if available for communication flow identification" it is understood that the

directions can be identified by using the information about source and destination of the

packet and rejection regarding claim 12 above).

The modified Mimura fails to explicitly disclose that the analyzer is accessed to

an Ethernet access. However, Pruthi discloses such limitation (Pruthi, figure 1 "104",

[0032] "communication line 104...Ethernet"). It would have been obvious to the person

of ordinary skill in the art, at the time the invention was made, to have used Ethernet as

specified in Pruthi in order to allow Mimura's analyzer to work with widely used, least

cost, Ethernet network.

35.   **Regarding claim 16**, modified Mimura teaches the device of claim 12, wherein

Pruthi further teaches the information including normality states on the subscriber for

each service is generated by referring to statistical data on a number of trials and a

number of success events separated by each service option, and statistics data on a

number of service trials and a number of success events by TCP port numbers

periodically or in real-time according to a request by the mobile communication network

management service provider (Pruthi, figure 4, [0033], please see motivation on

previous rejections).

36.   **Regarding claim 19**, modified Mimura teaches the method of claim 18, wherein

(a) comprises: separating the user packet data into transmit data and receive data, and

receiving them (Mimura, [0037] "flow identifying...identifies a flow...conditions for

communication flow identification stored in the flow table 4 are set by using...Source IP

Address (SIP), Destination IP Address (DIP)", it is understood that the directions can be

identified by using the information about source and destination of the packet) through

an access between one of the mobile communication exchange and the packet

controller and the service server (see rejection regarding claim 18 above).

The modified Mimura fails to explicitly disclose that the analyzer is accessed to

an Ethernet access. However, Pruthi discloses such limitation (Pruthi, figure 1 "104",

[0032] "communication line 104...Ethernet"). It would have been obvious to the person

of ordinary skill in the art, at the time the invention was made, to have used Ethernet as

specified in Pruthi in order to allow Mimura's analyzer to work with widely used, least

cost, Ethernet network.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to YOUPAPORN NILANONT whose telephone number is

(571) 270-5655. The examiner can normally be reached on Monday through Thursday

and alternate Friday at 8:30 AM - 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey C. Pwu can be reached on (571) 272-6798. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. N./
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446